Title of International Workshop: INTEGRATED PEST MANAGEMENT: TOWARDS SUSTAINABILITY IN TODAY'S SOCIETY

Date and Time: January 17, 2013 13:30-17:30
Venue: Meeting room (Room No. E107), East building, CSEAS, Kyoto University

1) Speaker: **Professor Dr. Lee Chow Yang (Universiti Sains Malaysia)**

Title of presentation: BEST MANAGEMENT PRACTICE IN INTEGRATED URBAN PEST MANAGEMENT - A TALE OF 2 SCENARIOS

Dr Chow-Yang Lee is a Professor of Entomology at Universiti Sains Malaysia. He is internationally known for his research on biology and management of urban insect pests in Southeast Asia. His research has contributed towards improving management strategies against urban and public health insect pests and promoting sustainable pest management. He has authored and co-authored more than 150 peer-reviewed articles and had delivered more than 120 invited papers including as keynote, plenary and symposium speaker. Dr. Lee received many accolades at international and national levels including the 2012 Top Research Scientists Malaysia, The Outstanding Young Malaysian Awards 2008 (Honouree for the category of Academic Leadership and Accomplishment), HH Yap Award (2003), MSPTM Medal (2003), Fulbright Scholarship (2002) and the National Young Scientist Award (2000). He has also served as visiting professor to National Taiwan University (2009, 2011, 2012), Kyoto University (2007, 2011) and visiting scientist to Purdue University (1997, 2002) and University of Florida (1999).

Abstract:

Pest managers are interested in knowing how to develop best practices, an integrated approach that includes addressing pest issues from sudden outbreaks to chronic infestations resulting in safe and healthy outcome, while taking into account economical, social and environmental sustainability. No best practice is best for every pest management operation, and every situation will change as individuals find better ways to reach the end result. However, principles involved in developing best practices for achieving a stated goal or objective remains the same. Through a "real world" example of a serious outbreak of blow flies, blue bottle flies and houseflies following March 11, 2011 mega-scale earthquake in the north-east coastal region of Japan; the presentation will address on the importance of developing a project management mindset – and therefore a best practice for a pest management project or program as a whole; including the steps necessary to take to reach the end goal. The earthquake triggered tsunami waves damaging the 400 km coastal line where seafood and marine product processing industries once thrived. Following the tsunami, thousands of tons of seafood products in these processing plants were strewn all over the coastal cities. In early May 2011, large number of flies began to appear in the

affected cities. Emergency pest management operation has to be executed to intercept possible public health issues. This involved coordination efforts made during the operation, chemical treatment and source removal operation, and the eventual success of fly populations, as well the challenges faced. On the contrary, the dengue vector management in Singapore is considered one of the most successful mosquito vector management programs in the world. Using Singapore integrated pest management approaches towards *Aedes* mosquitoes, I will discuss the core set of best practices from this experience can be considered and adopted for area-wide management of insect pests during natural disaster, as well as during normal times.

2) Speaker: **Asso. Prof. Dr. Joseph Bong Choon Fah (**Universiti Putra Malaysia)

Title of presentation: INTEGRATED PEST MANAGEMENT IN OIL PALM PLANTATION IN MALAYSIA

Dr. Joseph Bong Choon Fah is an Associate Professor in Department of Crop Science, Universiti Putra Malaysia. His research interest mainly focuses on management of oil palm on in Sarawak that including identifying termite pest species in oil palm and developing biological control management against termite pest in oil palm. He has authored and co-authored more than 20 peer-reviewed articles in his scientific career.

Abstract:

Oil palm is the most important agricultural crop in Malaysia. The crop is grown in large plantations as a monoculture producing 19 million metric tons of oil annually or 27% of the world's export of vegetable oil. The cultivation of oil palm is hindered by 2 major obstacles namely, termite Coptotermes curvignathus attack and Basal Stem Rot (BSR) disease. To date, both these problems have not been effectively resolved. Several strategies and approaches are adopted and integrated into the management of C. curvignathus and BSR in oil palm for long term sustainability of the crop. In C. curvignathus infestation, the biology of the termite, the symptoms of infestation, damage pattern, tunnelling and foraging behaviour, incidence, environmental factors, control measures and the overall biodiversity of termites are important considerations for integrated management. For BSR disease, integrated management requires understanding of the etiology and epidermiology of the disease, symptom and damage to palm, soil and palm nutrient status, and control options. These strategies and approaches are discussed in the light of recent researches. Another disease of increasing importance is the Upper Stem Rot disease which is also discussed.

3) Speaker: **Dr. Vuong Tan Nguyen (**Institute of Ecology and Works Protection, Vietnam)

Title of presentation: SUSTAINABLE TERMITE MANAGEMENT PRACTICES IN AGRO-INDUSTRIAL PLANTATIONS IN VIETNAM.

Dr. Vuong Tan Nguyen is a vice director of Institute of Ecology and Works Protection underVietnam Academy for Water Resources in Hanoi, Vietnam. He has been working on termite management in Vietnam for approximately 30 years. He is the one who has gone through the decades when persistent organochlorine pesticides (OCPs) and polychlorinatedbiphenyls (PCBs) that were widely used and being banned in 90's, until today in which integrated pest management is at the forefront in Vietnam society. He actively involves in termite damage evaluation and management in dam, dyke, residential premises as well as agro-industrial plantations, e.g., coffee, rubber, cacao, sugar cane and *Eucaplytus* plantations. Considering the need in promoting sustainable pest management practices, he has been resilientlydeveloping termite baiting system against the notorious termitid pest species as the current baiting system has so far received limited success.

Abstract:

Agricultural sector is the backbone of Vietnam's economic development. In 2004, it accounted for 21.8% of the gross domestic product in Vietnam and continuously grows withan annual rate of 4.1%. Agro-industrial plantations, e.g., coffee, rubber, cacao, sugar cane and *Eucaplytus* plantations are the main products. However, crop pests, particularly termites, have been a main concern in the sector. This render a large amount of pesticides was drained into agricultural fields.At present, 662 types of pesticides with 1,549 commercial products are available in the Vietnam market, but only 13 types of pesticides (active compound) are specifically target on termite pests. The management of termite in agricultural fields are always more complicated than other crop pests due to their cryptic lifestyle. Understanding on the biology and ecology of termite pest is crucial for effective prevention and management. Based on termite pest species, particular landscapes, and regional climatic variation in Vietnam, several measures have been formulated in order to minimizing the input of pesticides into the land and the effect of non-targeting organism. Harnessing services from ecosystem, for example, introduction of natural predators is also highlighted in this presentation to ensure sustainability.